

### **REMARKS**

Applicants note that in the Amendment in Response to Non-Final Office Action dated September 27, 2007, claim 11 was incorrectly labeled as “Canceled.” Claim 11 was previously withdrawn as per the Office Action dated April 24, 2006. Accordingly, with this amendment, claim 11 is correctly labeled as “Withdrawn.” Applicants apologize for the error.

In response to the Office action, claims 1, 3, 5-6, and 9 are amended. Claim 4 is canceled. Claim 11 is withdrawn. Claim 12 is new. Thus, claims 1-3 and 5-10 and 12 are pending in this application.

#### **Support for Claim Amendments**

Claims 1, 5, 6 and 9 are amended to correct antecedent basis.

Claim 1 is amended to disclose folder objects corresponding to the shared space group and folder system operations associated with the folder objects. Support for these amendments may be found in the specification, for example, at [0053]-[0063] and Figures 7-9.

Claim 3 is amended to reflect the changes to independent claim 1.

Claims 5 and 9 are amended to disclose determining whether an updated shared file should be replicated on a second computing device based on a file replication setting, and downloading from multiple computing devices. Support for these amendments may be found in the specification, for example, at [0062] [0076] [0080] and Figure 9.

Claim 6 is amended to reflect the changes to independent claim 5.

Claim 12 is new and depends from claim 1. Support for claim 12 may be found in the specification, for example, at [0058].

#### **Claim Rejections Under 35 USC §102**

Claims 1-3 and 5 were rejected under 35 U.S.C. 102(e) as being anticipated by *Aboulhosn et al.* US Patent No. 6,938,042 (“Aboulhosn”).

**Claim 1:**

Applicants submit that Aboulhosn does not anticipate each and every element of amended claim 1. Aboulhosn is generally directed to a file sharing system where the file owner serves as a “gatekeeper” for modifications to the shared files (Aboulhosn, abstract). When a shared file is updated, accessed, and the like by a non-file owning member, the non-file owning member dialogs with the owner in order to inform other group members. (Aboulhosn, 2:15-23). Aboulhosn further discloses the ability to add, delete or modify a file of the shared folder (Aboulhosn, 6:60-62).

Aboulhosn does not appear to disclose “sending a direct communication from the first user over the network to a computing device used by the at least one other user that has permission to receive the communication to indicate that the first folder object has been modified by the first user after such folder system operation has been performed wherein a graphical representation of the first folder object modification is displayed on the computing device used by the at least one other user,” where “the shared space group comprising the first user and the at least one other user wherein the first user is not an owner of the shared space group and the at least one other user is not the owner of the shared space group,” as recited in amended claim 1.

For Aboulhosn’s scenarios, communication between peers regarding actions to *folders* themselves (as contrasted to actions to files within the folder) appears to run solely through the group owner, and not directly between non-owning members. For example, Aboulhosn 3:54-60 discusses a group owner communicating the deletion of a group resulting in a deletion of the shared folder. Aboulhosn Fig. 6A and its corresponding text illustrate a group owner inviting a new member and the resultant creation of a new folder. Aboulhosn Fig. 6B and its corresponding text illustrate a non-group member wishing to synchronize and running through the group owner “gatekeeper” to accomplish synchronization. Indeed, Aboulhosn claims 14 and 35 are the only claims that mention a “folder” and neither discloses “the shared space group comprising the first user and the at least one other user wherein the first user is not an owner of the shared space group and the at least one other user is not the owner of the shared space group,” and “sending a direct communication from the first user over the network to a computing device used by the at least one other user that has permission to receive the communication to indicate that the first folder object has been modified by the first user after such file system operation has been performed wherein a graphical

representation of the first folder object modification is displayed on the computing device used by the at least one other user,” as recited in amended claim 1.

Furthermore, Aboulhosn does not appear to disclose the element of amended claim 1 “displaying to the first user a set of folder system operations for selection including: create folder object, rename folder object, delete folder object, hide folder object, show hidden folder object, change folder object setting, replicate file setting, and specify new content of folder object.” Amended claim 1 discloses displaying to the user a set of options for selection regarding folder manipulation. Aboulhosn does not appear to disclose displaying the entire set of folder system operations of the present application including, in particular, “rename folder object..., hide folder object, show hidden folder object, change object setting, replicate file setting, and specify new content of folder object” as recited in amended claim 1. Additionally, Aboulhosn does not appear to disclose presenting this entire set to the first user for selection.

Moreover, Aboulhosn does not appear to disclose the element of amended claim 1 “performing the first requested folder system operation,” and specifically if the operation is the rename folder object, hide folder object, show hidden folder object, change object setting, replicate file setting, or specify new content of folder object option.

Amended claim 1 provides benefit over Aboulhosn as a set of options for folder system operations is provided so that the user may indicate a selection. The set of options include activities that provide value to user in addition to the basic creating and deleting, such as, *inter alia*, hiding and showing folder objects, changing settings, file replicating settings, and specifying new content of a folder. Furthermore, amended claim 1 does not require updates and operations concerning folders to flow through the group owner as in Aboulhosn, thus saving message traffic and time. If the group owner is unavailable for some reason, folder operations may still occur in a reliable, timely manner.

At least for the above discussed reasons, Aboulhosn does not appear to disclose the elements of “sending a direct communication from the first user over the network to a computing device used by the at least one other user that has permission to receive the communication to indicate that the first folder object has been modified by the first user after such folder system operation has been performed wherein a graphical representation of the first folder object modification is displayed on the computing device used by the at least one other user,” where “the shared space group comprising the first user and the at least one other

user wherein the first user is not an owner of the shared space group and the at least one other user is not the owner of the shared space group,” “displaying to the first user a set of folder system operations for selection including: create folder object, rename folder object, delete folder object, hide folder object, show hidden folder object, change folder object setting, replicate file setting, and specify new content of folder object,” and “performing the first requested folder system operation,” as recited in amended claim 1. At least for this reason and for additional reasons, Applicants assert that Aboulhosn does not disclose each and every element of amended claim 1, and therefore does not anticipate amended claim 1.

### **Claims 2 and 3:**

Dependent claims 2-3 depend from amended claim 1. Independent amended claim 1 has been shown above to be allowable. Thus, dependent claims 2-3 are patentable as depending from an allowable base claim and as including further distinctions over the cited reference.

### **Claim 5:**

Independent claim 5 is amended to disclose the element:

determining, by the second computing device based on a file replication setting, whether the updated shared file should be replicated on the second computing device, comprising:

if the file replication setting indicates an on-demand basis, downloading, by the second computing device from multiple computing devices of the group, portions of the updated shared file upon receiving a user-demanded file replication indication, and

if the file replication setting indicates automatic replication, automatically downloading, by the second computing device, from multiple computing devices of the group, portions of the updated shared file,

wherein the multiple computing devices of the group are selected based upon at least one from a set of routing factors comprising: IP address and least routing time.

Applicants assert that Aboulhosn does not appear to disclose this element of amended claim 5.

As previously discussed, Aboulhosn does not appear to disclose a file replication setting. Aboulhosn also does not appear to disclose a file replication setting that indicates an on-demand or automatic file replication, and using this file replication setting in determining whether an updated shared file should be replicated on a second computing device.

Furthermore, Aboulhosn does not appear to disclose “downloading, by the second computing device, from multiple computing devices of the group, portions of the updated

shared file wherein the multiple computing devices of the group are selected based upon at least one from a set of routing factors comprising: IP address and least routing time.”

Aboulhosn claim 1, for example, discloses retrieving the content of the file from the second computer system, and not from “multiple computing devices of the group” as recited in amended claim 5. Aboulhosn also appears to be silent on “a set of routing factors” for selecting the multiple computing devices of the group.

Amended claim 5 provides benefit over Aboulhosn as options are provided to the user to indicate when s/he wishes file replication to occur. For instance, a user may choose “on-demand” so that s/he may have more control over disk space usage at his/her computing device. Or, in another instance, a user may choose “automatic replication” to save the bother of having to respond to each update from other computing devices.

Further benefit by amended claim 5 over Aboulhosn is provided as portions of the downloaded file may be obtained from multiple computing devices. This may enable the speed of downloading to be quicker, as closer computing devices may provide the portions of the file they have. Aboulhosn is not able to optimize downloading speed as he necessarily discloses going to a single computing device to retrieve the file.

For at least these reasons and for additional reasons, Applicants respectfully assert that Aboulhosn does not disclose each and every element of claim 5 and therefore, Aboulhosn does not anticipate amended claim 5.

### Claim Rejections Under 35 USC §103

#### **Claims 6-8:**

Claims 6-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Aboulhosn as applied to claim 5 above, and further in view of *Taylor et al.* US Patent 5,754,306 (“Taylor”).

As established above, Aboulhosn does not anticipate the element of amended claim 5:

determining, by the second computing device based on a file replication setting, whether the updated shared file should be replicated on the second computing device, comprising:

if the file replication setting indicates an on-demand basis, downloading, by the second computing device from multiple computing devices of the group, portions of the updated shared file upon receiving a user-demanded file replication indication, and

if the file replication setting indicates automatic replication, automatically downloading, by the second computing device, from multiple computing devices of the group, portions of the updated shared file,  
wherein the multiple computing devices of the group are selected based upon at least one from a set of routing factors comprising: IP address and least routing time.

Taylor also does not appear to teach, disclose or suggest this element of amended claim 5. Taylor is generally directed to providing an electronic address book for electronic mail and facsimile transmission. Taylor teaches “when a physical connection exists, a request by the File Manager on the remote machine is dispatched immediately” (Taylor, 27:21-23), and not replicating the updated shared file based on a file replication setting comprising on-demand or automatic replication, as disclosed by amended claim 5. Moreover, Taylor illustrates in Figures 23b-23e, for example, the portions of the synchronized files being exchanged between two machines based upon delta changes of the file content. Downloading portions of a shared file from multiple computing devices based on routing factors, as recited by the above claim element, does not appear to be disclosed by Taylor.

With regard to amended claim 6, the Office action relied on Taylor, Figure 20A and 28:3-6 to disclose “displaying a third icon corresponding to the shared file when a file has not been updated.” Applicants respectfully disagree with this citation. Taylor Figure 20A and 28:3-6 disclose an “‘Unsynchronize’ item that is grayed unless a file name or directory, which is marked for synchronization is selected from a view. The ‘Unsynchronize’ item unmarks the file or directory for synchronization.”

If the Office action intended to construe the “Unsynchronize” item to be the “third icon” of this element of claim 5, Taylor, 27:20-33 shows that “Unsynchronize” is command from a menu. The command menu item “Unsynchronize” is grayed, meaning that the command cannot be selected. The grayed command menu item does not correspond to the shared file.

If the Office action intended to construe that the unmarking of the file or directory for unsynchronization is the “third icon,” Applicants submit that this unmarking occurs *a priori* to an update. That is, the unmarking indicates that a user wishes to reverse a previous synchronization command request for that file or directory. Taylor 28:5-6 teaches a user selecting the Unsynchronize command menu item to unmark a file for which the user had previously requested synchronization. The unmarking does not indicate that “the shared file

*has not been updated*” as recited in claim 5, where the past verb tense indicates that an attempt to update was made, and the update did not happen.

Amended claim 6 and claim 7 depend from amended claim 5 and, therefore, both amended claim 6 and claim 7 incorporate by reference each and every element of amended claim 5. Claim 8 depends from claim 7 and therefore incorporates by reference each and every element of claim 7.

Amended claim 5, and therefore amended claim 6 and claims 7-8, provide benefit over Taylor as options are provided to the user to indicate when s/he wishes file replication to occur. For instance, a user may choose “on-demand” so that s/he may have more control over disk space usage at his/her computing device. Or, in another instance, a user may choose “automatic replication” to save the bother of having to respond to each update from other computing devices. Further benefit by amended claim 5 over Taylor is provided as portions of the downloaded file may be obtained from multiple computing devices based upon routing factors. This may enable the speed of downloading to be quicker, as closer computing devices may provide the portions of the file they have.

Applicants assert that no combination of Aboulhosn and Taylor appears to teach, disclose or suggest each and every element of amended claim 5. Furthermore, the Office action has not cited to a portion of Taylor or Aboulhosn that teaches, discloses or suggests the element of amended claim 6 “displaying a third icon corresponding to the shared file when a file has not been updated.” Therefore, no combination of Aboulhosn and Taylor appears to teach, disclose or suggest each and every element of amended claim 6 and claims 7-8. For at least these reasons and for additional reasons, amended claim 6 and claim 7-8 are allowable under 35 U.S.C. §103(a) over Aboulhosn and Taylor.

#### **Claims 9-10:**

Claims 9-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Aboulhosn in further view of *Balfanz et al.* US Publication No. 2004/0103280 (“Belfanz”).

Independent claim 9 is amended to disclose the element:

determining, by the at least one other online member based on a file replication setting, whether the moved file should be replicated on an at least one other computing device used by the at least one other online member of the group, comprising:

if the file replication setting indicates an on-demand basis, downloading, by the second computing device, from multiple computing devices of the group, portions of the

moved file upon receiving a user-demanded file replication indication from the at least one other online member, and

if the file replication setting indicates automatic replication, automatically downloading, by the second computing device, from multiple computing devices of the group, portions of the moved file,

wherein the multiple computing devices of the group are selected based upon at least one from a set of routing factors comprising: IP address and least routing time.

where “the first online member of the group is not an owner of the group” and “the at least one other online member of the group is not an owner of the group.”

As previously established, Aboulhosn does not disclose a file replication setting. Aboulhosn also does not appear to disclose a file replication setting that indicates an on-demand or automatic file replication, and using this file replication in determining whether an updated shared file should be replicated on a second computing device. Furthermore, Aboulhosn does not appear to disclose “downloading, by the second computing device, from multiple computing devices of the group, portions of the moved file, wherein the multiple computing devices of the group are selected based upon at least one from a set of routing factors comprising: IP address and least routing time,” as recited in amended claim 9.

Balfanz is generally directed to a system and a method for sharing files securely using cryptographic information over a range-limited communication channel. Balfanz does not appear to teach, disclose or suggest this element of amended claim 9, including, for example, a file replication setting that indicates an on-demand or automatic file replication, using this file replication in determining whether an updated shared file should be replicated on a second computing device, and downloading, by the second computing device, from multiple computing devices of the group, portions of the moved file wherein the multiple computing devices of the group are selected based upon at least one from a set of routing factors comprising: IP address and least routing time. For example, Balfanz [0060] discloses laptop 12(1) sending the file to laptop 12(2); laptop 12(2) does not receive portions of the file from multiple computing devices of the group, the multiple devices selected based on routing factors.

Amended claim 9 and claim 10 provide benefit over Balfanz as options are provided to the user to indicate when s/he wishes file replication to occur. For instance, a user may choose “on-demand” so that s/he may have more control over disk space usage at his/her computing device. Or, in another instance, a user may choose “automatic replication” to save the bother of having to respond to each update from other computing devices. Further benefit



by amended claim 9 and claim 10 over Balfanz is provided as portions of the downloaded file may be obtained from multiple computing devices based upon routing factors. This may enable the speed of downloading to be quicker, as closer computing devices may provide the portions of the file they have.

Applicants assert that no combination of Aboulhosn and Balfanz appears to teach, disclose or suggest each and every element of amended claim 9. As claim 10 depends from amended claim 9, it incorporates by reference each and every element of amended claim 9. Therefore, no combination of Aboulhosn and Balfanz appears to teach, disclose or suggest each and every element of claim 10. For at least these reasons and for additional reasons, claim 10 is also allowable under 35 U.S.C. §103(a) over Aboulhosn and Balfanz.

### **CONCLUSION**

In view of the above amendment and arguments, the applicant submits the pending application is in condition for allowance and an early action so indicating is respectfully requested.

The Commissioner is authorized to charge any fee deficiency required by this paper, or credit any overpayment, to Deposit Account No. 13-2855, under Order No. 30835/306546, from which the undersigned is authorized to draw.

Dated: March 7, 2008

Respectfully submitted,

By /Jeffrey K. Berger/  
Jeffrey K. Berger  
Registration No.: 51,460  
MARSHALL, GERSTEIN & BORUN LLP  
233 S. Wacker Drive, Suite 6300  
Sears Tower  
Chicago, Illinois 60606-6357  
(312) 474-6300  
Agent for Applicant